

1 FIGURES AND SEQUENCES (600-1-284P)

2 (locations of polymorphisms or sites of polymorphisms appear in bold underline)

3

4 FIGURE 1 AND SEQ ID NO:1

5 Wild-type gene

6
7 -177 CTGCCGGCTC ACTCGGCTGC TGCCTCTGGT CTGGCGTCTG CTGAGAAGAT CCTCTTCTAC
8 -117 CCTGCTCTGC ACCTGTGTC GACTGCCAGC CGGCTGAGGG CGGGGGTCTC CACGGTGGTC
9 -57 CCAGCTCCCA AGGAGGTTGC AGAA

10 1 gtaagg gcctgagccg ctggaggcgt ggtgggggtc IVS I

11 37 ctgctgacag actgcagcaa agcagggcggt gttggagggggg caggaggaag ctgggtccca
12 97 ggcgttctg ggtgtgtctc agtctctttt gtgcctgcgt gtgcgtgagg gcagggttgg
13 157 gcatttctgt gtgtctgtgt gtgtacttg tgcctctgca tccctgtgcc tgcgtacac
14 217 cgagtggctg tgcgttcatc agtccctgtg ggtggacacg tgcctgggg tgcgtacac
15 277 tccaggcacc ctgtgtgtga gtctctaaac caaatggac cgtgtcccttgc cgggtgcata
16 337 tgcgttcttg tgcgtgtga gtccctgtct gtgcacacgt tgcctctgtgt ctccatgtgt
17 397 ccctgcatgt gcatgtgtgc ctgtgtgttc tgcgtgtgtgt gcccgtgtgc ctcatgttct
18 457 ctccgctggg cgtgtgtctg gcactgcagc cacttgtctc tgcgtctgtt cccag

19
20 -33 GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGCATG ATG Start

21 4 GAGCCCCCTCT TCCCCGCGCC GTTCTGGGAG GTTATCTAGC GCAGGCCACCT TCAGGGCAAC
22 64 CTGTCCTCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC
23 124 CACGGCGCCT TCCTGCCCCCT CGGGCTCAAG GTCACCACCG TGGGGCTCTA CCTGGCCGTG
24 184 TGTGTGGAG GGCTCTGGGG GAACTGCCTT GTCATGTACG TCATCCTCAG GCACACCAAA
25 244 ATGAAGACAG CCACCAATAT TTACATCTTT AACCTGGCCC TGGCCGACAC TCTGGTCCTG
26 304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGGCT TCTGGCCGTT TGGGAATGCG
27 364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCAACCTA
28 424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC
29 484 CGCACGTCCA GCAAAGCCCA GGCTGTCAAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC
30 544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG

31
32 1 gtca gtgggggtgc IVS III

33 15 ccctctcccc ctcaccaggc tccctggctc ccgggtggct cctctggcc cagtccct
34 65 ccacgtctcc tggggccact ctgacccctt ttctctccct gcag

35
36 590 AGAT CGAGTGCCTG
37 604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TTGCCATCTG CATCTCCCTC
38 664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCG
39 724 CTCCGTGGAG TCCGCCTGCT CTCGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC
40 784 ACTCGGCTGG TGCTGGTGGT AGTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC
41 844 TTCGTGCTGG CCCAAGGGCT GGGGGTTCAAG CCGAGCAGCG AGACTGCCGT GGCCTATTCTG
42 904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCCTCA ACCCCATCCT CTACGCCCTTC

1 964 CTGGATGAGA ACTTCAAGGC CTGCTCCGC AAGTTCTGCT GTGCATCTGC CCTGCGCCCC
2 1024 GACGTGCAGG TGTCTGACCG CGTGCAGCAGC ATTGCCAAGG ACGTGGCCCT GGCCTGAAAG
3 1084 ACCTCTGAGA CGGTACCGCG GCCCGATGA CTAGGCGTGG ACCTGCCCAT GGTGCCTGTC
4 1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGGC
5 1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTCCCTG TGGGCCAGGG
6 1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGAC AGGTCAAAGC ATTAGGGCCA
7 1324 CCTCCATGGC CCCAGACAGA CTAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAAG
8 1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTGCCTCCTC
9 1444 CCTCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCTGGGT
10 1504 GGGCAGGCAC CCGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCCCCA TGTGCTGTGT
11 1564 GCTGTTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT
12 1624 GGACAGGCTT GGCACGGCCC GGGAAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTG
13 1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTT CGACTCCACC TGTGCAGCCG
14 1744 GGGCCACCCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG

Intron sequences (IVS I and IVS III) are shown in small case letters. Numbering for each IVS begins with +1 for the first base of the intron; numbering is specific for each intron. mRNA sequence is shown in capital letters. +1 is assigned to the first base of the initiation codon. Nucleotides upstream (5') from the initiation codon are assigned negative numbers. The ATG initiation codon and TGA stop codon are shown in bold. Locations of identified SNPs are also shown in bold and underlined.

FIGURE 2 AND SEQ ID NO:2

Wild-type Intron I (IVS I)

30 1 gtaagg gcctgagccg ctggagggtcg ggtgggggtc
31 37 ctgctgacag actgcagcaa agcagggcgg gtggaggggg caggaggaag ctgggtcccc
32 97 ggcgtttctg ggtgtgtctc agtctctttt gtgcctgcgt gtgcgtgagg gcagggtttgg
33 157 gcatttctgt gtgtctgtgt gtgtgacttg tgtccctgca tccctgtgcc tgtgaacacg
34 217 cgagtggctg tgggttcatc agtccctgtg ggtggacacg tgtcctgggg ttagctgcc
35 277 tccaggcacc ctgtgtgtga gtctctaaac caaatgggac cgtgtcccttg cgggtgcatg
36 337 tgggtctttg tggtctgtga gtccctgtct gtgcacacgt gtccctgtgt ctccatgtgt
37 397 ccctgcatgt gcatgtgtgc ctgtgtgttc tgggtgtgtgt gcccgtgtgc ctcaagtgtct
38 457 ctccgcgtggg cgtgtgtctq qcactqcacq cacttgtctc tgcgctctgt cccag

40 FIGURE 3 AND SEQ ID NO:3
41 G-46A polymorphism in 5'-untranslated region

1
2 -177 CTGCCGGCTC ACTCGGCTGC TGCGTCTGGT CTGGCGTCTG CTGAGAAGAT CCTCTTCTAC
3 -117 CCTGCTCTGC ACCTGTGCTC GACTGCCAGC CGGCTGAGGG CGGGGGTCTC CACGGTGGTC
4 -57 CCAGCTCCC AAGAGGTTGC AGAA
5
6

7 FIGURE 4 AND SEQ ID NO:4
8 GIVS I 135C polymorphism in intron I
9

10 1 gtaagg gcctgagccg ctggaggctcg ggtgggggtc
11 37 ctgctgacag actgcagcaa agcagggccgg gtggaggggg caggaggaag ctgggtccc
12 97 ggcgttctg ggtgtgtctc agtctctttt gtgcctgcat gtgcgtgagg gcaggtttgg
13 157 gcatttctgt gtgtctgtgt gtgtgacttg tgcctctgca tccctgtgcc tgtgaacacg
14 217 cgagtggctg tgcgttcatc agtccctgtg ggtggacacg tgcctctgggg tgcgtgtgcc
15 277 tccagggcacc ctgtgtgtga gtctctaaac caaatgggac cgtgtccttg cgggtgcatg
16 337 tgcgtctttt tggtctgtga gtccctgtct gtgcacacgt gtccctgtgt ctccatgtgt
17 397 ccctgcatgt gcatgtgtgc ctgtgtgttc tggtgtgtgt gcccgtgtgc ctcaagtgtct
18 457 ctccgctggg cgtgtgtctg gcactgcagc cacttgtctc tgcgctctgt cccag
19
20

21 FIGURE 5 AND SEQ ID NO:5
22 GIVS I 250A polymorphism in intron I
23

24 1 gtaagg gcctgagccg ctggaggctcg ggtgggggtc
25 37 ctgctgacag actgcagcaa agcagggccgg gtggaggggg caggaggaag ctgggtccc
26 97 ggcgttctg ggtgtgtctc agtctctttt gtgcctgcat gtgcgtgagg gcaggtttgg
27 157 gcatttctgt gtgtctgtgt gtgtgacttg tgcctctgca tccctgtgcc tgtgaacacg
28 217 cgagtggctg tgcgttcatc agtccctgtg ggtagacacg tgcctctgggg tgcgtgtgcc
29 277 tccagggcacc ctgtgtgtga gtctctaaac caaatgggac cgtgtccttg cgggtgcatg
30 337 tgcgtctttt tggtctgtga gtccctgtct gtgcacacgt gtccctgtgt ctccatgtgt
31 397 ccctgcatgt gcatgtgtgc ctgtgtgttc tggtgtgtgt gcccgtgtgc ctcaagtgtct
32 457 ctccgctggg cgtgtgtctg gcactgcagc cacttgtctc tgcgctctgt cccag
33
34
35

1 FIGURE 6 AND SEQ ID NO:6

2 GIVS I 251A polymorphism in intron I

3
4 1 gtaagg gcctgagccg ctggaggtcg ggtgggggtc
5 37 ctgctgacag actgcagcaa agcagggccg gtggaggggg caggaggaag ctgggtccca
6 97 ggcgtttctg ggtgtgtctc agtctctttt gtgcctgcgt gtgcgtgagg gcagggttgg
7 157 gcattctgt gtgtctgtgt gtgtgacttg tgcctctgca tccctgtgcc tgtgaacacg
8 217 cgagtggctg tgcgttcatc agtcccgtg ggtgaacacg tgcctctgggg tgcgtgtgtcc
9 277 tccaggcacc ctgtgtgtga gtctctaaac caaatggac cgtgtccttgcgggtgcatg
10 337 tgtgtctttt tggtctgtga gtccctgtct gtgcacacgt gtccctgtgt ctccatgtgt
11 397 ccctgcatgt gcatgtgtgc ctgtgtgttc tggtgtgtgt gcccgtgtgc ctgcgtgtct
12 457 ctccgcgtgg cgtgtgtctg gcactgcagc cacttgtctc tgcgctctgt cccag
13
14

15 FIGURE 7 AND SEQ ID NO:7

16 C510T polymorphism in coding region

17
18 -33 GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGCATG ATG Start
19 4 GAGCCCCTCT TCCCCGCGCC GTTCTGGGAG GTTATCTACG GCAGGCCACCT TCAGGGCAAC
20 64 CTGTCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC
21 124 CACGGCGCCT TCCTGCCCC CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG
22 184 TGTGTCGGAG GGCTCCTGGG GAACTGCCCT GTCATGTACG TCATCCTCAG GCACACCAAA
23 244 ATGAAGACAG CCACCAATAT TTACATCTT AACCTGGCCC TGGCCGACAC TCTGGCCTG
24 304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCCTGGCT TCTGGCCGTT TGGGAATGCG
25 364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCTA
26 424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC
27 484 CGCACGTCCA GCAAAGCCCA GGCTGTTAAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC
28 544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG
29
30 590 AGAT CGAGTGCCTG
31 604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TTGCCATCTG CATCTCCCTC
32 664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCGG
33 724 CTCCGTGGAG TCCGCCTGCT CTCGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC
34 784 ACTCGGCTGG TGCTGGTGGT AGTGGCTGTG TTCGTGGCT GCTGGACGCC TGTCCAGGTC
35 844 TTCGTGCTGG CCCAAGGGCT GGGGGTTCA CGGAGCAGCG AGACTGCCGT GGCCATTCTG
36 904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCTCA ACCCCATCCT CTACGCCCTC
37 964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCAGCCGG
38 1024 GACGTGCAGG TGTCTGACCG CGTGCAGCAG ATTGCCAAGG ACGTGGCCCT GGCCTGCAAG
39 1084 ACCTCTGAGA CGGTACCGCG GCCCGCATGA CTAGGCGTGG ACCTGCCCAT GGTGCCTGTC
40 1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG
41 1204 GACACACCCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTCCCTG TGGGCCAGGG
42 1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA

1 1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAG
2 1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTCCCCCTC
3 1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCTGGGT
4 1504 GGGCAGGCAC CCGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCCCCA TGTGCTGTGT
5 1564 GCTGTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT
6 1624 GGACAGGCTT GGCACGGCCC GGGAAAGTGCA GCAGGCAGCT TTTCTTGGG GTGGGACTTG
7 1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCTGTTC CGACTCCACC TGTGCAGCCG
8 1744 GGGCACCCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG
9
10

FIGURE 8 AND SEQ ID NO:8

CIVS III 67T polymorphism in intron III

14 -33 GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGCATG ATG Start
15 4 GAGCCCTCT TCCCCGCGCC GTTCTGGAG GTTATCTACG GCAGCCACCT TCAGGGCAAC
16 64 CTGTCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC
17 124 CACGGCGCT TCCTGCCCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG
18 184 TGTGCGGAG GGCTCCTGGG GAACTGCCCT GTCATGTACG TCATCCTCAG GCACACCAA
19 244 ATGAAGACAG CCACCAATAT TTACATCTTT AACCTGGCCC TGGCCGACAC TCTGGCCTG
20 304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCTGGGCT TCTGGCCGTT TGGGAATGCG
21 364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCC
22 424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC
23 484 CGCACGTCCA GCAAAGCCCA GGCTGTTAAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC
24 544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG
25
26 1 gtca gtgggtgtc IVS III
27 15 ccctccccc ctcaccaggc tccctggctc cccgggtggct cctctggcc catgtgcccct
28 65 ccacgtctcc tgggcccact ctgaccccggt ttctctccct gcag
29
30 590 AGAT CGAGTGCCTG
31 604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TTGCCATCTG CATCTCCCTC
32 664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCG
33 724 CTCCGTGGAG TCCGCCTGCT CTCGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC
34 784 ACTCGGCTGG TGCTGGTGGT AGTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC
35 844 TTCGTGCTGG CCCAAGGGCT GGGGGTTCA CGGAGCAGCG AGACTGCCGT GGCCATTCTG
36 904 CGCTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCCTCA ACCCCATCCT CTACGCC
37 964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGC
38 1024 GACGTGCAGG TGTCTGACCG CGTGCAGC ATTGCCAAGG AGCTGGCCCT GGCCTGCAAG
39 1084 ACCTCTGAGA CGGTACCGCG GCCCGCATGA CTAGGCGTGG ACCTGCCCAT GGTGCCTGTC
40 1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG
41 1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTCCCTG TGGGCCAGGG
42 1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA

1 1324 CCTCCATGGC CCCAGACAGA CTAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAG
2 1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTGCCCCCTC
3 1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCCCTGGGT
4 1504 GGGCAGGCAC CCGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCCCA TGTGCTGTGT
5 1564 GCTGTTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT
6 1624 GGACAGGCTT GGCAACGGCCC GGGAAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTGG
7 1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTTG CGACTCCACC TGTGCAGCCG
8 1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG

11 FIGURE 9 AND SEQ ID NO:9
12 A804G polymorphism in coding region

14 -33 GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGCATG ATG Start
15 4 GAGCCCCCTCT TCCCCCGGCC GTTCTGGGAG GTTATCTACG GCAGCCACCT TCAGGGCAAC
16 64 CTGTCCCCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC
17 124 CACGGCGCCT TCCTGCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG
18 184 TGTGTGGAG GGCTCTGGG GAACTCCTT GTCATGTACG TCATCCTCAG GCACACCAAA
19 244 ATGAAGACAG CCACCAATAT TTACATCTT AACCTGGCCC TGGCCGACAC TCTGGTCCTG
20 304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGGCT TCTGGCCGTT TGGGAATGCG
21 364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCCCTA
22 424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC
23 484 CGCACGTCCA GCAAAGCCA GGCTGTCAAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC
24 544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG
25
26 590 AGAT CGAGTGCCTG
27 604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TTGCCATCTG CATCTTCCTC
28 664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCG
29 724 CTCCGTGGAG TCCGCCCTGCT CTCGGGCTCC CGAGAGAACGG ACCGGAACCT GCGGCGCATC
30 784 ACTCGGCTGG TGCTGGTGGT GGTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC
31 844 TTCGTGCTGG CCCAAGGGCT GGGGGTTTCAG CCGAGCAGCG AGACTGCCGT GCCCATTCTG
32 904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCCTCA ACCCCATCCT CTACGCCCTC
33 964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCGCCGG
34 1024 GACGTGCAGG TGTCTGACCG CGTGCAGC ATTGCCAAGG ACGTGGCCCT GGCCTGCAAG
35 1084 ACCTCTGAGA CGGTACCGCG GCCCGCATGA CTAGGCGTGG ACCTGCCCAT GGTGCCTGTC
36 1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG
37 1204 GACACACCCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTCCCTG TGGGCCAGGG
38 1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA
39 1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCCTGGTG CAGGGCCGAG GGGACACAAAG
40 1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTGCCCCCTC
41 1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCCCTGGGT
42 1504 GGGCAGGCAC CGGGAGGAGG AGCAGCAGCT GTGTCACTCT GTGCCCCCA TGTGCTGTG

1 1564 GCTGTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT
2 1624 GGACAGGCTT GGCACGGCCC GGGAAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTG
3 1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTT CGACTCCACC TGTGCAGCCG
4 1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG

5
6 FIGURE 10 AND SEQ ID NO:10
7 C1026T polymorphism in coding region

8
9 -33 GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGCATG ATG Start
10 4 GAGCCCCTCT TCCCCGCGCC GTTCTGGGAG GTTATCTACG GCAGGCCACCT TCAGGGCAAC
11 64 CTGTCCTCC TGAGCCCCAA CCACAGTCTG CTGCCCCCGC ATCTGCTGCT CAATGCCAGC
12 124 CACGGCGCCT TCCTGCCCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGGCCGTG
13 184 TGTGTCGGAG GGCTCCTGGG GAACTGCCCT GTCATGTACG TCATCCTCAG GCACACCAAA
14 244 ATGAAGACAG CCACCAATAT TTACATCTTT AACCTGGCCC TGGCGACAC TCTGGTCCTG
15 304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGGCT TCTGGCCGTT TGGGAATGCG
16 364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCAGCAC CTTCACCCCTA
17 424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC
18 484 CGCACGTCCA GCAAAGCCCA GGCTGTCAAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC
19 544 GGTGTTCCCG TTGCCATCAT GGGCTCGGCA CAGGTCGAGG ATGAAG
20
21 590 AGAT CGAGTGCCTG
22 604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCGGTGT TTGCCATCTG CATCTTCCTC
23 664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGCTGCT ACAGCCTCAT GATCCGGCGG
24 724 CTCCGTGGAG TCCGCCTGCT CTCGGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC
25 784 ACTCGGCTGG TGCTGGTGGT AGTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC
26 844 TTCTGCTGG CCCAAGGGCT GGGGTTCAAG CCGAGCAGCG AGACTGCCGT GGCCATTCTG
27 904 CGCTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCCTCA ACCCCATCCT CTACGCCCTC
28 964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCGCCGG
29 1024 GATTGCGAGG TGTCTGACCG CGTGCAGCG ATTGCAAGG ACGTGGCCCT GGCCATGCAAG
30 1084 ACCTCTGAGA CGGTACCGCG GCCCAGATGA CTAGCGTGG ACCTGCCCAT GGTGCCCTGTC
31 1144 AGCCCGCAGA GCCCATCTAC GCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG
32 1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTTCCCTG TGGGCCAGGG
33 1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGGAC AGGTCAAAGC ATTAGGGCCA
34 1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCCTGGT CAGGGCCGAG GGGACACAAG
35 1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCGT TACTGGAGCC CGTCCCCCTC
36 1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCCGGGT
37 1504 GGGCAGGCAC CGGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCTTCA TGTGCTGTGT
38 1564 GCTGTTGCA TGGCAGGGCT CCAGCTGCCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT
39 1624 GGACAGGCTT GGCACGGCCC GGGAAAGTGCA GCAGGCAGCT TTTCTTTGGG GTGGGACTTG
40 1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTT CGACTCCACC TGTGCAGCCG
41 1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG
42

1 FIGURE 11 AND SEQ ID NO:11

2 C1126G polymorphism in 3'-untranslated region

3

4 -33 GTACCG TACAGAGTGG ATTTGCAGGG CAGTGGCATG ATG Start

5 4 GAGCCCTCT TCCCCGCGCC GTTCTGGAG GTTATCTACG GCAGCCACCT TCAGGGCAAC

6 64 CTGTCCCTCC TGAGCCCCAA CCACAGTCTG CTGGCCCCGC ATCTGCTGCT CAATGCCAGC

7 124 CACGGCGCCT TCCTGCCCCCT CGGGCTCAAG GTCACCATCG TGGGGCTCTA CCTGCCGTG

8 184 TGTGTCGGAG GGCTCCTGGG GAACTGCCCT GTCATGTACG TCATCCTCAG GCACACAAA

9 244 ATGAAGACAG CCACCAATAT TTACATCTT AACCTGGCCC TGGCCGACAC TCTGGTCCTG

10 304 CTGACGCTGC CCTTCCAGGG CACGGACATC CTCCTGGCT TCTGGCCGTT TGGGAATGCG

11 364 CTGTGCAAGA CAGTCATTGC CATTGACTAC TACAACATGT TCACCCAGCAC CTTCACCCCTA

12 424 ACTGCCATGA GTGTGGATCG CTATGTAGCC ATCTGCCACC CCATCCGTGC CCTCGACGTC

13 484 CGCACGTCCA GCAAAGCCCA GGCTGTCAAT GTGGCCATCT GGGCCCTGGC CTCTGTTGTC

14 544 GGTGTTCCCG TTGCCATCAT GGGCTCGCA CAGGTGAGG ATGAAG

15

16 590 AGAT CGAGTGCCTG

17 604 GTGGAGATCC CTACCCCTCA GGATTACTGG GGCCCCGGTGT TTGCCATCTG CATTTCCCTC

18 664 TTCTCCTTCA TCGTCCCCGT GCTCGTCATC TCTGTCTGCT ACAGCCTCAT GATCCGGCGG

19 724 CTCCGTGGAG TCCGCCTGCT CTCGGGCTCC CGAGAGAAGG ACCGGAACCT GCGGCGCATC

20 784 ACTCGGCTGG TGCTGGTGGT AGTGGCTGTG TTCGTGGGCT GCTGGACGCC TGTCCAGGTC

21 844 TTCGTGCTGG CCCAAGGGCT GGGGGTTCAG CCGAGCAGCG AGACTGCCGT GGCCATTCTG

22 904 CGCTTCTGCA CGGCCCTGGG CTACGTCAAC AGCTGCCCTCA ACCCCATCCT CTACGCCCTC

23 964 CTGGATGAGA ACTTCAAGGC CTGCTTCCGC AAGTTCTGCT GTGCATCTGC CCTGCCGCCGG

24 1024 GACGTGCAGG TGTCTGACCG CGTGCAGCAGC ATTGCCAAGG ACGTGGCCTT GGCCATGCAAG

25 1084 ACCTCTGAGA CGGTACCGCG GCCCGCATGA CTAGGCGTGG ACGTGCCAT GGTGCCGTGTC

26 1144 AGCCCGCAGA GCCCATCTAC GCCCAACACA GAGCTCACAC AGGTCACTGC TCTCTAGGCG

27 1204 GACACACCCT GGGCCCTGAG CATCCAGAGC CTGGGATGGG CTTTTCCCTG TGGGCCAGGG

28 1264 ATGCTCGGTC CCAGAGGAGG ACCTAGTGAC ATCATGGAC AGGTCAAAGC ATTAGGGCCA

29 1324 CCTCCATGGC CCCAGACAGA CTAAAGCTGC CCTCTGGTG CAGGGCCAG GGGACACAAG

30 1384 GACCTACCTG GAAGCAGCTG ACATGCTGGT GGACGGCCGT TACTGGAGCC CGTCCCCCTC

31 1444 CCTCCCCGTG CTTCATGTGA CTCTTGGCCT CTCTGCTGCT GCGTTGGCAG AACCTGGGT

32 1504 GGGCAGGCAC CGGGAGGAGG AGCAGCAGCT GTGTCATCCT GTGCCCTTCA TGTGCTGTGT

33 1564 GCTGTTGCA TGGCAGGGCT CCAGCTGCCT TCAGCCCTGT GACGTCTCCT CAGGGCAGCT

34 1624 GGACAGGCTT GGCACGGCCC GGGAAAGTGCA GCAGGCAGCT TTTCTTGGG GTGGGACTTG

35 1684 CCCTGAGCTT GGAGCTGCCA CCTGGAGGAC TTGCCTGTTG CGACTCCACC TGTGCAGCCG

36 1744 GGGCCACCCC AGGAGAAAGT GTCCAGGTGG GGGCTGGCAG TCCCTGGCTG CAG